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NOCO INT

genius®

BOOST PRO™

GB150

User Guide

⚠ DANGER

PRIOR TO USE, READ AND UNDERSTAND PRODUCT SAFETY INFORMATION. Failure to follow the instructions may result in ELECTRICAL SHOCK, EXPLOSION, or FIRE, which may result in SERIOUS INJURY, DEATH, DAMAGE TO DEVICE or PROPERTY. Do not discard this information.

Welcome. Thank you for buying the NOCO Genius® Boost PRO™ GB150. Read and understand the User Guide before operating the product.

What's In The Box.

- GB150 Lithium Jump Starter w/HD Battery Clamps
- Micro USB Cable
- 12V Female Plug (OUT)
- 12V Male Plug (IN)
- 12V XGC Cable
- User Guide & Information Guide and Warranty

About GB150. The NOCO Genius® Boost PRO™ GB150 is an ultra-compact and portable lithium-ion jump starter for high-displacement gas and diesel engines in cars, trucks, boats and more. Safe to use on engines of any size. It's extremely safe for anyone to use. It features spark proof technology and reverse polarity protection. The GB150 can instantly jump start most single-battery applications, up to 80+ times on a single charge. The GB150 is also equipped with a USB battery pack, 12V OUT port and LED flashlight, making it the ultimate emergency tool.

Getting Started. The GB150 comes partially charged out of the box and needs to be fully charged prior to use. Carefully read and understand the vehicle owner's manual on specific precautions and recommended methods for jump starting the vehicle. Make sure to determine the voltage and chemistry of the battery by referring to your battery owner's manual prior to using this product. The GB150 is for jump starting 12-volt lead-acid batteries only.

Connecting to the Battery.

Before connecting to the battery, verify that you have a 12-volt lead-acid battery. The GB150 is not suitable for any other type of battery. Identify the correct polarity of the battery terminals on the battery. The positive battery terminal is typically marked by these letters or symbol (POS,P,+). The negative battery terminal is typically marked by these letters or symbol (NEG,N,-). Do not make any connections to the carburetor, fuel lines, or thin, sheet metal parts. The below instructions are for a negative ground system (most common). If your vehicle is a positive ground system (very uncommon), follow the below instructions in reverse order.

1.) Connect the positive (red) HD battery clamp to the positive (POS,P,+) battery terminal.

2.) Connect the negative (black) HD battery clamp to the negative (NEG,N,-) battery terminal or vehicle chassis.

3.) When disconnecting, disconnect in the reverse sequence, removing the negative first (or positive first for positive ground systems).

Jump Starting.

1.) Verify the voltage and chemistry of the battery.

2.) Confirm the HD battery clamps are connected to the correct polarity battery terminals.

3.) Make sure all of the vehicle's power loads (headlights, radio, air conditioning, etc.) are turned off before attempting to jump start the vehicle.

4.) Press the Power Button to begin jump starting. All LEDs will flash, indicating that all LEDs are properly functioning. If you are properly connected to the battery, the White Boost LED will illuminate and the charge level LEDs will chase. If the battery clamps are connected in reverse, the Red Error LED will illuminate. Reverse the connections to clear this error and then the White Boost LED will illuminate. The White Boost LED is illuminated, when the GB150 is ready to jump start your vehicle.

5.) Try starting the vehicle. Most vehicles will immediately start. Some vehicles may require the GB150 to be connected for up to 30 seconds before starting. If the vehicle does not start right away, wait 20-30 seconds and try again. Do not attempt more than five (5) consecutive jump starts within a fifteen (15) minute period. Allow the GB150 to rest for fifteen (15) minutes before attempting to jump start the vehicle again.

6.) Once you have started your vehicle, disconnect the battery clamps, and remove the GB150.

Low Voltage Batteries & Manual Override

The GB150 is designed to jump start 12-volt lead-acid batteries down to 2-volts. If your battery is below 2-volts, the Boost LED will be “Off”. This is an indication that the GB150 can not detect a battery.

If you need to jump start a battery below 2-volts there is a Manual Override feature, which allows you to force “On” the jump start function.

CAUTION. USE THIS MODE WITH EXTREME CARE. THIS MODE IS FOR 12-VOLT LEAD-ACID BATTERIES ONLY. BOTH THE SPARK PROOF AND REVERSE POLARITY PROTECTION FEATURES ARE DISABLED. PAY VERY CLOSE ATTENTION TO THE POLARITY OF THE BATTERY BEFORE USING THIS MODE. DO NOT ALLOW THE POSITIVE AND NEGATIVE BATTERY CLAMPS TO TOUCH OR CONNECT TO EACH OTHER AS THE PRODUCT WILL GENERATE SPARKS. THIS MODE USES VERY HIGH CURRENT (UP TO 4000 AMPS) THAT CAN CAUSE SPARKS AND HIGH HEAT IF NOT USED PROPERLY. IF YOU ARE UNSURE ABOUT USING THIS MODE, DO NOT ATTEMPT AND SEEK PROFESSIONAL HELP.

Before using the Manual Override feature, make sure the HD battery clamps are connected to the correct polarity battery terminals. To use the Manual Override feature, press and hold the Manual Override Button (a red exclamation point icon inside a red circle) for three (3) seconds. The White Boost LED will flash “On” and “Off” indicating you have successfully entered into Manual Override and it is ready to jump start your vehicle. If connected in reverse polarity, the Red Error LED will illuminate and the unit will not operate.

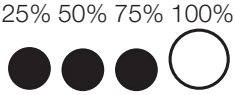
CAUTION: POWER THE GB150 “OFF” BEFORE DISCONNECTING THE BATTERY CLAMPS. THIS WILL ENSURE YOUR SAFETY. REMEMBER BOTH THE SPARK PROOF AND REVERSE POLARITY PROTECTION FEATURES ARE DISABLED.

Most vehicles will immediately start. Some vehicles may require the GB150 to be connected for up to 30 seconds before starting. If the vehicle does not start right away, wait

20-30 seconds and try again. Do not attempt more than five (5) consecutive jump starts within a fifteen (15) minute period. Allow the GB150 to rest for fifteen (15) minutes before attempting to jump start the vehicle again.

Understanding Charge LEDs.

The GB150 has four (4) Charge LEDs - 25%, 50%, 75% and 100%. These Charge LEDs indicate the internal battery's state-of-charge (SOC). See below:

LED	Explanation
25% Red LED 25% 50% 75% 100% 	The 25% Charge LED will be solid when the internal battery is 25% or less charged.
50% Red LED 25% 50% 75% 100% 	The 50% and 25% Charge LEDs will be solid when the internal battery is more than 25% but less than 50% charged.
75% Yellow LED 25% 50% 75% 100% 	The 75%, 50%, and 25% Charge LEDs will be solid when the internal battery is more than 50% but less than 75% charged.
100% Green LED 25% 50% 75% 100% 	All four (100%, 75%, 50%, and 25%) Charge LEDs will be solid when the internal battery is more than 75% up to 100% charged.

The above charge states apply when the GB150 is NOT connected to a power supply and recharging.

When Recharging the GB150.

LED	Explanation
25% Red LED 25% 50% 75% 100% 	The 25% Charge LED will slowly pulse “On” and “Off”, when the battery is less than 25% charged. When the battery is 25% charged, the Red Charge LED will be solid.
50% Red LED 25% 50% 75% 100% 	The 50% Charge LED will slowly pulse “On” and “Off”, when the battery is less than 50% charged. When the battery is 50% charged, the Red Charge LED will be solid.
75% Yellow LED 25% 50% 75% 100% 	The 75% Charge LED will slowly pulse “On” and “Off”, when the battery is less than 75% charged. When the battery is 75% charged, the Yellow Charge LED will be solid.
100% Green LED 25% 50% 75% 100% 	The 100% Charge LED will slowly pulse “On” and “Off”, when the battery is less than 100% charged. When the battery is fully charged, the Green LED will be solid, and the 25%, 50% and 75% Charge LEDs will turn “Off”.

Understanding Error Conditions.

The GB150 shall display an Error Condition when a reverse polarity condition is present, a battery below two (2) volts, or the internal battery overheating. When one of these Error Conditions are present, the following will happen:

Error	Reason/Solution
Error LED Solid Red	Reverse polarity/ Reverse the battery connections.

Error	Reason/Solution
Error LED Blinking Red w/Cables Connected Properly	The internal battery is too hot/ Allow the unit to cool. Bring the unit into cooler environment.
Boost Light Does Not Come On w/Cables Connected Properly	Connected battery is below 2-volts/ Remove all loads, and try again, or use Manual Override Mode.

Charging the GB150.

12V Fast Charge (60W):

Connect the 12V Cable to the “12V IN” port on the GB150, and the other end to the Male 12 Plug. Plug into a powered 12V AUX Plug (Cigarette Lighter Port.)

USB Charging (Up to 10W):

Connect the GB150 using the included USB Charge Cable to the USB IN port and a powered USB port, like an AC adapter, car charger, laptop and more. The USB IN port is rated at 2.1 Amps to ensure safe and efficient charging of the internal lithium battery.

Due to FCC regulations, we do not recommend charging and discharging the unit at the same time.

Charging Times.

The time to recharge a GB150 will differ based on the discharge level and the power source used. Actual results may vary due to battery conditions.

	USB Charger Rating			12V Fast Charge
	.5A	1A	2A	5A @ 12V (60W)
Time	45hr	22hr	11hr	2-3hr

Charging Your USB Devices.

You can recharge virtually any USB device, like a smartphone. Connect the included USB Charge Cable to the USB OUT port and connect to your USB device.

The number of times you can recharge a USB device will vary between devices. For recharge times, contact your device manufacturer.

Powering Your 12V Devices.

Connect the 12V Cable to the “12V OUT” port on the GB150, and the other end to the Female 12V Plug (12V AUX/Cigarette Lighter Port.) Plug-in any standard 12V device (Up to 15A) with a 12V plug and turn the GB150 “On” to start powering your device.

LED Flashlight.

The GB150 has an integrated ultra-bright LED flashlight. It has seven (7) light modes that effect its performance and longevity: 100%, 50%, 10%, SOS, Blink, Strobe, and Off.

To turn the flashlight “On” and “Off”, use the Power button with the light bulb icon. Press once to turn the flashlight “On” at 100% luminosity, again for 50% luminosity (within 3 seconds), again for 10% luminosity (within 3 seconds), again for SOS (within 3 seconds), again for Blink (within 3 seconds), again for Strobe (within 3 seconds) and again for “Off”. If a light mode is not selected within 3 seconds, it will remain “On” in the current light mode, and the next selection will turn the flashlight “Off”.

Depending on the mode selection, the GB150 will have various levels of output and runtime. Selecting a lower power level when using the GB150 for extended periods of time will prolong battery life.

Modes:
100% > 50% > 10% > SOS > Blink > Strobe > Off

Technical Specifications.

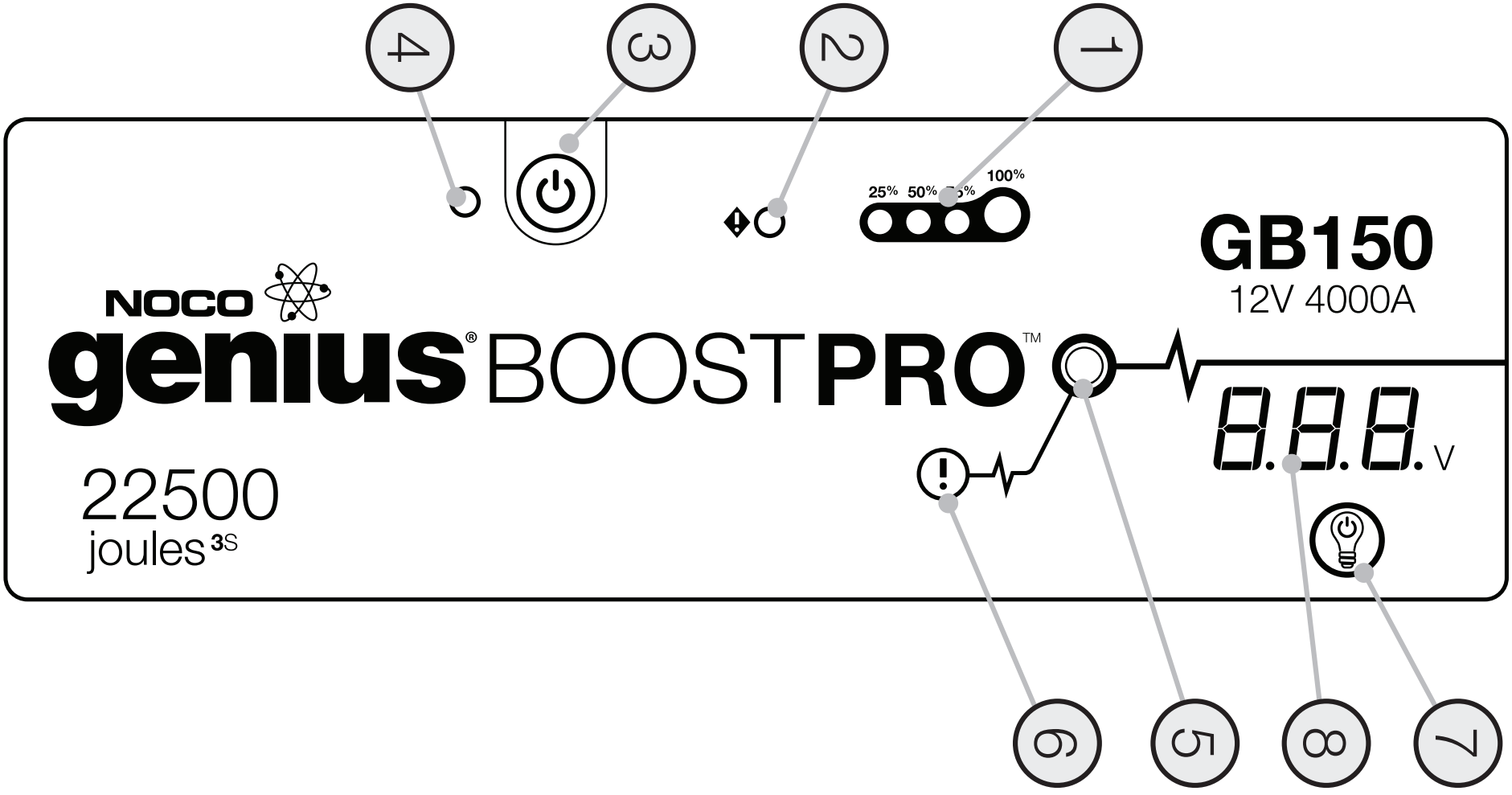
Internal Battery:	Lithium Ion
Peak Current Rating:	4000A
joules^{3S}:	22500+
Operating Temperature:	-30°C to +50°C
Charging Temperature:	0ºC to +40ºC
Storage Temperature:	-20ºC to +50ºC (Avg Temp.)
Micro USB (Input):	5V, 2.1A
USB (Output):	5V, 2.1A
12V (Input)	12V, 5A
12V (Output)	12V, 15A
Housing Protection:	IP65 (w/Ports Closed)
Cooling:	Natural Convection
Dimensions (L x W x H):	12.3 x 7 x 2.7 Inches
Weight:	7.5 Pounds

Energy Saving Auto Shut Off.

The GB150 has a built in energy saving feature that will automatically turn the unit off after seven (7) hours. To continue using, simply power on the unit again.

Voltmeter.

The built-in voltmeter reads the voltage of the vehicle's battery for enhanced diagnostics and troubleshooting. The voltmeter will automatically read the voltage of any battery (or battery system) when the battery clamps are connected, even if the unit is powered off. The voltmeter will read voltage between ~3V and ~20V. If the connected battery is below 3V, nothing will display. If the voltage is that low, there is likely a load(s) on the battery, such as headlights or and AC fan, that should be shut off before attempting to start the vehicle.


4
3
2
1
25%
50%
75%
100%
GB150
12V 4000A
NOCO
genius BOOST PRO™
22500
joules 3S
8.8.8. V
6
5
8
7

User Interface.

1. Internal Battery Level

Indicates the charge level of the internal battery.

2. Error LED

Illuminates Red if reverse polarity is detected, or blinks “On” and “Off” when the internal battery temperature is too high.

3. Power Button

Push to turn unit “On” & “Off”.

4. Power LED

Illunimates White when unit is “On”.

5. Boost LED

Illuminates White when Boost is active. If the unit is connected properly to a battery, the GB150 will automatically detect a battery and go into Boost mode (LED flashes White when Manual Overide feature is active).

6. Manual Override Button

To enable, push and hold for three (3) seconds.
WARNING: Disables safety protection and manually forces Boost “On”. Only for use when a battery is too low to be detected.

7. Light Mode Button

Toggles the ultra-bright LED light through 7 light modes:
100% > 50% > 10% > SOS > Blink > Strobe > Off

8. Voltmeter Display

Displays the voltage of the vehicle’s battery for enhanced diagnostics and troubleshooting when the battery clamps are connected.